叶皓然

北京，中国 | 出生年月：2001.10 | (+86) 159-0515-0535 | hrye@stu.pku.edu.cn

个人主页 | 谷歌学术 | GitHub | 领英 | 小红书

教育背景

北京大学 | 智能学院 | 智能科学与技术（直博） 2024.09 – 2029.06（预计）
- 班级综合排名 1/33（连续两年）；导师：宋国杰教授

苏州大学 | 计算机科学与技术学院 | 人工智能（本科） 2020.09 – 2024.06
- 年级综合排名 1/250，平均成绩 95/100

实习经历

月之暗面（Moonshot AI）| Kimi RL 团队，研究实习生 2026.03 – 至今
- 参与 Kimi K2.5 与 Kimi K3 系列模型研发；提升模型在科学编程、通用工具调用、多轮与个性化交互等场景下的能力。

基金项目

国家自然科学基金青年学生基础研究项目（博士研究生），项目负责人（学院同年唯一） 2025.12 – 至今
- 《通用心理测量大模型构建关键技术研究》：构建通才测量大模型，面向两类应用：（1）自然人心理测量、行为预测与群体建模；（2）智能体细粒度奖励建模。

中国科协青年人才托举工程博士生专项计划，入选者（学院唯二） 2025.12 – 至今

国家级大学生创新创业训练计划，项目负责人 2022.06 – 2024.06
- 《基于元强化学习的配送路径动态优化算法研究》；国家重点支持领域项目（学院唯一）；结题获评最高等级（优秀）。

论文发表

- 我的研究聚焦于通用的自进化智能体，包括不可验证（unverifiable）领域中的人类价值对齐。
- Google Scholar 第一作者论文被引 1,100+（截至 2026 年 9 月）；发表 CCF-A 类会议论文 13 篇（第一作者 6 篇）。

自进化：智能体能力的持续进化与内化

推动智能体在经验、技能、harness 与参数层面的自我进化。

- **Harness-Zero: Harness Distillation via Agent-as-Harness** link
  H. Ye, Y. Lu, H. Dong, Z. Su, G. Song. arXiv:2609.24974, 2026.
  提出智能体 Harness 蒸馏，通过 agent-as-harness 方法将优化后的外部 Harness 能力内化进模型权重；*AlphaXiv* 趋势榜 *Top 10*，多家学术自媒体主动报道，*Juergen Schmidhuber* 教授（*LSTM* 之父）主动建联交流。
- **Meta Context Engineering via Agentic Skill Evolution** link
  H. Ye, X. He, V. Arak, H. Dong, G. Song. ICML 2026.
  将上下文表示为文件与代码，驱动上下文工程技能与上下文协同进化，突破静态智能体 Harness 的限制；*AlphaXiv* 趋势榜 *Top 3*。
- **ReEvo: Large Language Models as Hyper-Heuristics with Reflective Evolution** link
  H. Ye, J. Wang, Z. Cao, F. Berto, C. Hua, H. Kim, J. Park, G. Song. NeurIPS 2024.
  提出反思进化，将 LLM 反思与进化计算结合，用于开放式构造性搜索与 LLM 测试时扩展；被 *Google DeepMind* 多篇论文引用，包括 *AlphaEvolve*。
- **NeuReasoner: Towards Explainable, Controllable, and Unified Reasoning via Mixture-of-Neurons** link
  H. Dong, K. Jiang, **H. Ye**, W. Zhu, Z. Kang, G. Song. ACL 2026 Main, Oral.
- **AutoEP: LLMs-Driven Automation of Hyperparameter Evolution for Metaheuristic Algorithms** link
  Z. Xu, Y. Zhang, W. Bao, H. Wang, M. Chen, **H. Ye**, W. Jiang, H. Yan, J. Wang. ICLR 2026, Oral.
- **VRPAgent: LLM-Driven Discovery of Heuristic Operators for Vehicle Routing Problems** link
  A. Hottung, F. Berto, C. Hua, N. G. Zepeda, D. Wetzel, M. Römer, **H. Ye**, D. Zago, et al. arXiv:2510.07073, 2025.

基准、评估与对齐

度量 LLM 与智能体的能力，对齐其价值。

- **Large Language Model Psychometrics: A Systematic Review of Evaluation, Validation, and Enhancement** link
  H. Ye, J. Jin, Y. Xie, X. Zhang, G. Song. arXiv:2505.08245, 2025.
  LLM 心理测量领域首个系统性综述。

- **Generative Psycho-Lexical Approach for Constructing Value Systems in Large Language Models** link
  H. Ye, T. Zhang, Y. Xie, L. Zhang, Y. Ren, X. Zhang, G. Song. ACL 2025 Main.
  构建 LLM 原生、可解释的价值体系，训练模型实现价值对齐。
- **Measuring Human and AI Values Based on Generative Psychometrics with Large Language Models** link
  H. Ye, Y. Xie, Y. Ren, H. Fang, X. Zhang, G. Song. AAAI 2025.
  训练价值测量大模型，建立人类与 AI 价值的统一测量框架。
- **ValueBench: Towards Comprehensively Evaluating Value Orientations and Understanding of LLMs** link
  Y. Ren, **H. Ye**, H. Fang, X. Zhang, G. Song. ACL 2024 Main.
  首个全面评估 LLM 价值取向与价值理解的基准。
- **Agent-ValueBench: A Comprehensive Benchmark for Evaluating Agent Values** link
  H. Dong, Q. Feng, K. Jiang, **H. Ye**, X. Zhang, G. Song. arXiv:2605.10365, 2026.
- **Agents' Last Exam** link
  Y. Sun, X. Han, W. Zhang, et al. (including **H. Ye**). NeurIPS 2026.

进化与优化基础
支撑自进化的优化机制，以及于组合优化等领域的应用。

- **DeepACO: Neural-Enhanced Ant Systems for Combinatorial Optimization** link
  H. Ye, J. Wang, Z. Cao, H. Liang, Y. Li. NeurIPS 2023.
  以图神经网络增强蚁群智能；被图灵奖得主 *Yoshua Bengio* 团队引用。
- **GLOP: Learning Global Partition and Local Construction for Solving Large-Scale Routing Problems in Real-Time** link
  H. Ye, J. Wang, H. Liang, Z. Cao, Y. Li, F. Li. AAAI 2024.
  可学习的全局划分 + 局部构造策略，实现大规模路径问题的实时求解。
- **RL4CO: An Extensive Reinforcement Learning for Combinatorial Optimization Benchmark** link
  F. Berto, C. Hua, J. Park, L. Luttmann, Y. Ma, F. Bu, J. Wang, **H. Ye**, M. Kim, et al. KDD 2025, Oral.
- **TransPlace: Transferable Circuit Global Placement via Graph Neural Network** link
  Y. Hou, **H. Ye**, Y. Zhang, S. Xu, G. Song. KDD 2025.
- **RoutePlacer: An End-to-End Routability-Aware Placer with Graph Neural Network** link
  Y. Hou, **H. Ye**, Y. Zhang, S. Xu, G. Song. KDD 2024.

工业界技术报告
作为 Kimi 团队署名作者参与旗舰模型研发。

- **Kimi K3: Open Frontier Intelligence** link
  Kimi Team (including **H. Ye**). arXiv:2607.24653, 2026.
- **Kimi K2.5: Visual Agentic Intelligence** link
  Kimi Team (including **H. Ye**). arXiv:2602.02276, 2026.

荣誉奖项

- 2025–2026：北京市三好学生（同年学院唯一）；国家奖学金（同年学院排名第一）；北京大学校长奖学金（同年学院同级唯一）。
- 2024：江苏省大学生年度人物（全省本科生第 2）；江苏省优秀本科毕业论文；苏州大学五四创新奖章（唯一本科生获得者）。
- 2022–2023：国家奖学金；江苏省三好学生；三好学生标兵。

领导力与课外活动

- 北京大学智能学院研究生会副主席；智能学院男子篮球队队长。
- 北京大学跳绳队队员；全国跳绳联赛银牌；北京大学运动会个人项目五枚金牌。

Haoran Ye

Beijing, China | Born: Oct 2001 | (+86) 159-0515-0535 | hrye@stu.pku.edu.cn

Homepage | Google Scholar | GitHub | LinkedIn | Xiaohongshu

Education

Peking University | SIST | Ph.D. in Intelligence Science (direct-track) Sep 2024 – Jun 2029 (expected)

- Class rank 1/33 (two consecutive years); Advisor: Prof. Guojie Song

Soochow University | Computer Science | B.Eng. in Artificial Intelligence Sep 2020 – Jun 2024

- Grade rank 1/250, Average Grade 95/100

Experience

Moonshot AI | Kimi RL Team, Research Intern Mar 2026 – present

- Contributed to the development of the Kimi K2.5 and Kimi K3 model series; improving model capabilities in scientific coding, general tool use, and multi-turn and personalized interaction.

Grants

NSFC Youth Student Basic Research Project (Ph.D. student grant), Principal Investigator Dec 2025 – present

- *Key Technologies for Building General-Purpose Psychometric LLMs*: building a generalist psychometric LLM for two application domains: (1) psychometrics, behavior prediction, and population modeling of natural persons; (2) fine-grained reward modeling for agents. (The only recipient in SIST.)

CAST Young Talent Cultivation Project for Doctoral Students (one of two grantees in SIST) Dec 2025 – present

National College Student Innovation and Entrepreneurship Program, Project Lead Jun 2022 – Jun 2024

- *Dynamic Delivery Route Optimization via Meta-Reinforcement Learning*; National Key Support Project (the only one in the school); completed with the highest rating (Excellent).

Publications

- My research focuses on general-purpose, self-evolving agents, including their alignment with human values in non-verifiable domains.
- 1,100+ citations on **first-author** papers on Google Scholar (as of Sep 2026); 13 papers at CCF-A conferences (6 as first author).

Self-Evolution: Continuous Evolution and Internalization of Agent Capabilities

Evolving agents across experience, skills, harnesses, and model parameters.

- **Harness-Zero: Harness Distillation via Agent-as-Harness** link
  H. Ye, Y. Lu, H. Dong, Z. Su, G. Song. arXiv:2609.24974, 2026.
  Distills optimized agent harnesses into model weights via agent-as-harness; *AlphaXiv Trending Top 10; proactively covered by numerous academic media outlets; Prof. Jürgen Schmidhuber (father of LSTM) proactively reached out for discussion.*
- **Meta Context Engineering via Agentic Skill Evolution** link
  H. Ye, X. He, V. Arak, H. Dong, G. Song. ICML 2026.
  Represents context as files and code, and co-evolves context-engineering skills with context, overcoming static agent harnesses; *AlphaXiv Trending Top 3.*
- **ReEvo: Large Language Models as Hyper-Heuristics with Reflective Evolution** link
  H. Ye, J. Wang, Z. Cao, F. Berto, C. Hua, H. Kim, J. Park, G. Song. NeurIPS 2024.
  Proposes reflective evolution, combining LLM reflection with evolutionary computation for open-ended constructive search and LLM test-time scaling; *cited by multiple Google DeepMind papers including AlphaEvolve.*
- **NeuReasoner: Towards Explainable, Controllable, and Unified Reasoning via Mixture-of-Neurons** link
  H. Dong, K. Jiang, **H. Ye**, W. Zhu, Z. Kang, G. Song. ACL 2026 Main, Oral.
- **AutoEP: LLMs-Driven Automation of Hyperparameter Evolution for Metaheuristic Algorithms** link
  Z. Xu, Y. Zhang, W. Bao, H. Wang, M. Chen, **H. Ye**, W. Jiang, H. Yan, J. Wang. ICLR 2026, Oral.
- **VRPAgent: LLM-Driven Discovery of Heuristic Operators for Vehicle Routing Problems** link
  A. Hottung, F. Berto, C. Hua, N. G. Zepeda, D. Wetzel, M. Römer, **H. Ye**, D. Zago, et al. arXiv:2510.07073, 2025.

Benchmarks, Evaluation & Alignment

Measuring capabilities and aligning values of LLMs and agents.

- **Large Language Model Psychometrics: A Systematic Review of Evaluation, Validation, and Enhancement** link
  H. Ye, J. Jin, Y. Xie, X. Zhang, G. Song. arXiv:2505.08245, 2025.
  The first systematic review of LLM psychometrics.
- **Generative Psycho-Lexical Approach for Constructing Value Systems in Large Language Models** link
  H. Ye, T. Zhang, Y. Xie, L. Zhang, Y. Ren, X. Zhang, G. Song. ACL 2025 Main.
  Constructs LLM-native, interpretable value systems, and trains models to achieve value alignment.
- **Measuring Human and AI Values Based on Generative Psychometrics with Large Language Models** link
  H. Ye, Y. Xie, Y. Ren, H. Fang, X. Zhang, G. Song. AAAI 2025.
  Trains value-measurement LLMs, establishing a unified measurement framework for human and AI values.
- **ValueBench: Towards Comprehensively Evaluating Value Orientations and Understanding of LLMs** link
  Y. Ren, **H. Ye**, H. Fang, X. Zhang, G. Song. ACL 2024 Main.
  The first comprehensive benchmark for evaluating value orientations and understanding of LLMs.
- **Agent-ValueBench: A Comprehensive Benchmark for Evaluating Agent Values** link
  H. Dong, Q. Feng, K. Jiang, **H. Ye**, X. Zhang, G. Song. arXiv:2605.10365, 2026.
- **Agents' Last Exam** link
  Y. Sun, X. Han, W. Zhang, et al. (including **H. Ye**). NeurIPS 2026.

Foundations in Evolution & Optimization

The optimization machinery underlying self-evolution, and its applications in combinatorial optimization and beyond.

- **DeepACO: Neural-Enhanced Ant Systems for Combinatorial Optimization** link
  H. Ye, J. Wang, Z. Cao, H. Liang, Y. Li. NeurIPS 2023.
  Enhances ant colony intelligence with graph neural networks; *cited by the group of Turing Award laureate Yoshua Bengio.*
- **GLOP: Learning Global Partition and Local Construction for Solving Large-Scale Routing Problems in Real-Time** link
  H. Ye, J. Wang, H. Liang, Z. Cao, Y. Li, F. Li. AAAI 2024.
  A learnable global-partition + local-construction strategy for real-time large-scale routing.
- **RL4CO: An Extensive Reinforcement Learning for Combinatorial Optimization Benchmark** link
  F. Berto, C. Hua, J. Park, L. Luttmann, Y. Ma, F. Bu, J. Wang, **H. Ye**, M. Kim, et al. KDD 2025, Oral.
- **TransPlace: Transferable Circuit Global Placement via Graph Neural Network** link
  Y. Hou, **H. Ye**, Y. Zhang, S. Xu, G. Song. KDD 2025.
- **RoutePlacer: An End-to-End Routability-Aware Placer with Graph Neural Network** link
  Y. Hou, **H. Ye**, Y. Zhang, S. Xu, G. Song. KDD 2024.

Industry Technical Reports

Contributing author of flagship model technical reports as a member of the Kimi Team.

- **Kimi K3: Open Frontier Intelligence** link
  Kimi Team (including **H. Ye**). arXiv:2607.24653, 2026.
- **Kimi K2.5: Visual Agentic Intelligence** link
  Kimi Team (including **H. Ye**). arXiv:2602.02276, 2026.

Selected Honors and Awards

- 2025–2026: Beijing Municipal Merit Student (the only recipient in SIST in the same year); National Scholarship (ranked 1st in SIST in the same year); PKU Presidential Scholarship (the only recipient in the 2024 SIST cohort).
- 2024: Student of the Year, Jiangsu Province (ranked 2nd among all undergraduate students); Excellent Undergraduate Thesis of Jiangsu Province; May Fourth Medal of Innovation, Soochow University (the only undergraduate recipient).
- 2022–2023: National Scholarship; Provincial Merit Student; Pacemaker to Merit Student.

Leadership and Activities

- Vice President of the Graduate Student Union, SIST, PKU; Captain of the SIST Men's Basketball Team.
- Member of the PKU Rope Skipping Team; silver medal at the National Rope Skipping Competition of China; five individual gold medals at the PKU Sports Festival.